

Claims

1. Surface coated manganese sulfide, obtainable in that powdered manganese sulfide is provided, a coating agent, preferably selected from the group consisting of a wax, an ester of an inorganic or organic acid, an oil, a low-melting polymer, a mono- to multi-functional aliphatic alcohol with 2 to 12 carbon atoms or mixtures thereof, is added in an amount of 0.01 to 10 wt.% relative to the weight of the manganese sulfide used, and the mixture is mixed for a period of time which is sufficient to ensure a homogeneous mixture.
2. Manganese sulfide according to claim 1, characterized in that the powdered manganese sulfide has a particle size of 1 to 200  $\mu\text{m}$ , preferably 1 to 10  $\mu\text{m}$ .
3. Manganese sulfide according to claim 1 or 2, characterized in that the low melting polymer has a melting point under 150°C and is a polyester, polyamide or a polyaliphatic compound.
4. Manganese sulfide according to claim 1 and 2, characterized in that the ester of the inorganic acid is a phosphoric acid ester.
5. Manganese sulfide according to claim 4, characterized in that the phosphoric acid ester is diphenylcresylphosphate or triphenylphosphate.
6. Manganese sulfide according to claim 1 or 2, characterized in that the oil is a paraffinic oil or silicon oil.
7. Method for producing surface-modified manganese sulfide ( $\text{MnS}$ ), characterized in that powdered manganese sulfide is provided, a coating agent, selected from the group consisting of a wax, an ester of an inorganic or an organic acid, an oil, a low melting polymer, a mono- to multi-functional aliphatic alcohol with 2 to 12 carbon atoms or mixtures

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thereof, is added in an amount of 0.01 to 10 wt.% relative to the weight of the manganese sulfide used, and the mixture is mixed for a period of time which is sufficient to ensure a homogeneous mixture.

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8. Method according to claim 7, characterized in that the manganese sulfide has a particle size from 1 to 200  $\mu\text{m}$ , probably from 1 to 10  $\mu\text{m}$ .

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9. Method according to claim 7 or 8, characterized in that the coating agent is added in an amount of 0.01 to 5.0 wt.%, especially preferably from 1.0 to 3.0 wt.%, relative to the weight of the manganese sulfide used.

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10. Method according to any of the claims 7 to 9, characterized in that the ester of the inorganic acid is a phosphoric acid ester.

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11. Method according to claim 10, characterized in that the ester of the phosphoric acid is diphenylcresylphosphate or triphenylphosphate.

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12. Use of the manganese sulfide according to any of the claims 1 to 6 as an additive for improving the compression characteristics of powder mixtures.

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13. Use of the manganese sulfide according to any of claims 1 to 6 as an additive to sinter powders for improving the processability of the molded sintered article.

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14. Sinter powder, characterized by a content of manganese sulfide according to one of the claims 1-6.

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15. Method for producing a molded article using the sinter powder according to claim 14, comprising the following steps:

- a) compression of the sinter powder in a sinter mold that has an inner shape corresponding to the final contour of the finished molded article;

- b) heating the green compact to a temperature above the evaporation temperature of the coating agent used for production of the manganese-sulfide and, if necessary, maintaining the green compact at this temperature for a period of time sufficient to ensure complete evaporation of the coating agent;
- c) sintering the green compact of step b);
- d) removing the cooled molded article from the sinter mold.

16. Molded article, obtainable by the method according to claim 15.

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